

$$d_{AB} = \sqrt{(4-1)^2 + (4-1)^2} = \sqrt{9+9} = \sqrt{18}$$

$$d_{BC} = \sqrt{(6-4)^2 + (2-4)^2} = \sqrt{4+4} = \sqrt{8}$$

$$d_{AC} = \sqrt{(2-1)^2 + (6-1)^2} = \sqrt{1+25} = \sqrt{26}$$

17. Find the *perimeter* of $\triangle ABC$ where $A(1, 1)$, $B(4, 4)$, $C(6, 2)$ are the vertices of a right triangle. Round to the nearest tenth if needed.

$$\sqrt{18} + \sqrt{8} + \sqrt{26} \approx 12.17$$

18. The volume of a solid gold statue can be approximated as 1000 cm^3 . If the density of gold is about 20 g/cm^3 , what is the mass of the statue?

19.

	Owens a Car	Does Not Own a Car	TOTAL
Junior	6	10	16
Senior	12	8	20
TOTAL	18	18	36

Use the table to find the probability that the student is a Junior and does NOT own a car?

- A. $5/18$
- B. $1/2$
- C. $5/9$
- D. $5/8$

$$\frac{10}{36} = \frac{5}{18}$$

20.

1	2	4	5	7	9
10	11	13	16	18	19

You shuffle the cards shown above and choose one at random. What is the probability that you choose a gray card or an even number?

- A. $35/144$
- B. $12/19$
- C. $5/6$
- D. 1

$$P(A) + P(B) - P(A \cap B)$$

$$\frac{7}{12} + \frac{5}{12} - \frac{2}{12} = \frac{10}{12} = \frac{5}{6}$$